

Grasping the Materializations of Practices in Digital Humanities

A Semantic Research Environment for Analyzing Exam Grading Practices in German High Schools

*Christoph Schindler¹, Julian Hocker¹, Lars Müller¹,
Maria Maleshkova², Tobias Weller²*

¹ DIPF, Germany

{schindler, julian.hocker, l.mueller}@dipf.de

² KIT, Germany

{maria.maleshkova, tobias.weller}@kit.edu

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1 Motivational background

Recently, practice theory has been established alongside humanities and social sciences in historical research and has aligned analysis according to materializations of loosely interlinked arrangements of practices, materialities, and actors (cf. Reh, 2014). While digital humanities have proven its great capacity to deal with massive data (distant reading), the digital enhancement of qualitative approaches is lacking (cf. Drucker, 2012). This desideratum is addressed in this project which uses a semantic graph to create a linked web and offering tools for combining qualitative and quantitative analysis.

In: M. Gäde/V. Trkulja/V. Petras (Eds.): Everything Changes, Everything Stays the Same? Understanding Information Spaces. Proceedings of the 15th International Symposium of Information Science (ISI 2017), Berlin, 13th–15th March 2017. Glückstadt: Verlag Werner Hülsbusch, pp. 365–367.

2 Research design and digital humanities

Empirically, the case study addresses a corpus of 2.000 digitized and around 800 transcribed German essays from high-school graduates (1882–1972). In the handwritten essays of the high school graduates, the teachers' reviews are materialized which need to be profoundly and expressively connected to sources of the educational and governmental apparatus (e.g. school protocols, pedagogical publications, regulations, legal provisions). The corpus encompasses essays from Berlin/Brandenburg, Baden-Wuerttemberg, and Bavaria allowing a comparison of arrangements of the different practices of grading. The selected research environment Semantic CorA¹ offers to semantically collect and query sources as well as researchers' comments within one single system. Thus it supports integration of qualitative and quantitative research approaches adjust the research project to its specifics and needs. Therefore, a participatory design approach with an agile development and rapid prototyping ensures involvement of researchers as well as archivists, a data librarian, computer scientist, and information scientists into system development.

3 First outcomes and future plans

A first main outcome is the establishment of a workflow for the research data pipeline, which needed to grasp the archive research, essay collection and curation (e.g. schools, archives), digitization, enrichment, and transcriptions and the detailed semantic annotations in the research environment as well as a sustainable solution for re-using the data. Besides the data/metadata translations (METS/MODS, TEI, Wiki-Semantics), we realized a collaborative ontology development for specifying the research objectives (actors, materialities, practices) balancing complexities (e.g. fluidity of geographic boundaries, various educational apparatuses) to create a semantic graph, whereby an openness of formalizing entities and properties needed to be considered. Software development will focus on a tool for annotation and as well as on

¹ http://semantic-cora.org/index.php/Main_Page

a tool for analyzing text within Semantic CorA (cf. Rockwell & Sinclair, 2016).

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